

AMENDMENTS TO THE SPECIFICATION

Please amend paragraph 15 on pages 6 and 7 as follows:

[0015] An introduction to a better understanding of the truck mounted rotating broom system 10 for mounting, positioning, and powering a rotating broom 10 of the present invention may be had by appreciating the large size of the rotating broom 110 that is used with the present invention for sweeping a paved surface. While rotating brooms 110 come in a variety of different sizes and the present invention is not limited by the size of the rotating broom 110, the preferred embodiment of the present invention was constructed for mounting a substantially cylindrical rotating broom 110 having a diameter from substantially three feet to a diameter of substantially four feet. The length of the substantially cylindrical rotating broom 110 is about eighteen feet. This eighteen foot broom is turned at speeds varying from 550 rpm to 800 rpm while the truck (not shown) used to move the rotating broom 110 over the paved surface to be swept is traveling at speeds of up to 35 mph.

Please amend paragraph 17 on pages 7 and 8 as follows:

[0017] The design of the disclosed truck-mounted system for mounting, positioning, and powering a rotating broom solves a variety of interdependent problems. Starting with the tip speed at the end of each of the broom bristles, the effective uniform sweeping of a paved surface requires even contact of the end of the broom bristles across the full length or span of the rotating broom 110. Complicating this initial requirement for even contact of the bristle tips 114 with the paved surface is the coning of the shape of the substantially cylindrical rotating broom 110 from uneven wear patterns caused by a variety of factors, to include including differing terrain conditions. As will be understood

by those of ordinary skill in the art, the disclosed system can accommodate the coning of the shape of the substantially cylindrical rotating broom 110.

Please amend paragraph 18 on page 8 as follows:

[0018] Those familiar with the sweeping of paved surfaces, particularly airport runways, realize that when the truck reaches the end of the runway, the angular orientation of the rotating broom 110 must be changed to assure that the snow or debris continues to be displaced in the same direction off the runway or paved surface. In addition, the paved surface may be part smooth concrete, part smooth asphalt, and/or part rough asphalt. Accordingly, the truck mounted rotating broom system 10 for mounting, positioning, and powering a rotating broom 110 of the present invention provides a constant pattern of contact of the tips 114 of the bristles 112 with the paved surface, irrespective of the angular orientation of the rotating broom 110 with respect to the direction of travel of the truck or irregularities in the paved surface.

Please amend paragraph 20 on page 9 as follows:

[0020] The management of the weight of the truck-mounted rotating broom system 10 for mounting, positioning, and powering a rotating broom 110, together with its drive components, is the distinguishing feature of the present invention. If all of the weight of the rotating broom mounting hardware and drive mechanism were hung from the front bumper or from the front of the truck frame, the center of gravity of the truck would shift dramatically forward. Such a dramatic forward shift in the center of gravity would place inordinate loads on the front suspension, steering system, and front tires. If a caster system is added to bear the weight of the rotating broom along with its mounting componentry and drive system, a slight mispositioning of the caster wheels would reduce

the load on the suspension, steering system, and front tires of the truck. If reduced too much, such reduction in load on the front suspension, steering, and front tires would make the truck more difficult to control.

Please amend paragraph 28 on page 11 as follows:

[0028] The main component of the rotating broom control assembly 20 includes the mounting arm assembly or yoke ~~30~~ 22 for the long, substantially cylindrical rotating broom 110 mounted to the floating beam assembly 90 of the non-load bearing connection 88.

Please amend paragraph 33 on page 13 as follows:

[0033] The inner ends 104 of the four bars 102 are pivotably connected to the end of the swinging trunnion assembly 80, and the outer ends 106 of the four bars 102 are pivotably connected to the floating beam 90 as shown in Figure 6B. Oscillation bearings 93 on shaft 92 facilitate the pivoting action of the rotating broom 110. Because of the criticality of this connection to the operability of the disclosed invention, the preferred embodiment of the non-rigid connection 88 incorporates a sealed spherical 95 bearing 95 at each end of the linkage bars 102.

Please amend paragraph 34 on page 13 as follows:

[0034] As shown in Figure 6B, the front of the floating beam 90 includes oscillation stops 97 for positioning of the long rotating broom. As shown in Figure 6A 6B, rubber float stops 99 control the up and down movement of the rotating broom 110.

Please amend paragraph 35 on pages 13 and 14 as follows:

[0035] Those of ordinary skill in the art will understand that the foregoing construction provides a substantially rigid support system whose weight is supported by the truck. This substantially rigid support system includes the stationary gooseneck assembly 70 and the swinging trunnion assembly 80. It is the use of the non-load bearing connection 88 to connect the floating beam assembly 90 which enables the weight of the rotating broom control assembly 20, including the mounting componentry and the drive mechanism to be managed separately from the weight of the support system 60.

Please amend paragraph 37 on page 14 as follows:

[0037] As shown in Figures 1 and 8, once the long cylindrical rotating broom 110 is mounted between the rotating pivot arms 32, the top of the long cylindrical rotating broom ~~100~~ 110 may be enclosed with a cover assembly 130. Depending on the type of sweeping conditions encountered, the cover assembly 130 may include a directional flap for 132 directing snow or debris in a desired direction. An optional dump cover assembly 140 is shown in Figure 8.

Please amend paragraph 39 on page 15 as follows:

[0039] Rotation of rotating cylindrical broom assembly around its long axis is accomplished by one or more hydraulic motors located at the end of the rotating cylindrical broom, preferably in the broom pivot arm 32. Should up or down movement of either end of the rotating cylindrical broom 110 be required because of unusual terrain conditions, the hydraulic cylinders used to control the position of the broom pivot arms are actuated so that either end of the rotating broom 110 may be moved up or down.

Angular positioning of the rotating broom 110 with respect to the chassis of the truck is controlled, as previously indicated, by swinging the trunnion assembly 80 with respect to the stationary gooseneck assembly 90 70. Such movement of the swinging trunnion assembly 80 will not affect the ability of the floating beam assembly 90 to move, thereby separating rotating broom movement from movement of the swinging trunnion assembly 80 ~~the stationary gooseneck assembly 70~~.